

REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicants respectfully submit that the pending claims are not anticipated under 35 U.S.C. § 102. Accordingly, it is believed that this application is in condition for allowance. **If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.**

The applicants will now address each of the issues raised in the outstanding final Office Action. First, however, the undersigned would like to thank Examiner Piziali for courtesies extended during a telephone interview on March 17, 2004 (referred to as "the telephone interview").

Rejections under 35 U.S.C. § 102

Claims 1-9 and 12-23 stand rejected under 35 U.S.C. § 102(a) as being anticipated by purportedly admitted prior art (e.g., Figure 7 of the application). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Independent claims 1-6 are not anticipated by the purportedly admitted prior art of Figure 7 (i) because Figure 7 does not teach "a plurality of lead lines for connecting the gate electrodes to an external circuit and a plurality of connection terminals for connecting the

gate electrodes to the external circuit" as recited in these claims, as amended, and (ii) because Figure 7 does not teach gate electrodes making up N of gate electrode groups in which the lines belonging to each coset of modulo N within successive pixel rows are connected to common lead lines, where the number N is the minimum number corresponding to the periodic unit about connections from the gate electrodes to connection terminals within the successive pixel rows as recited in these claims. Each of these features, which distinguish independent claims 1-6 from the purportedly admitted prior art of Figure 7, is addressed below.

First, the purportedly admitted prior art does not teach "a plurality of lead lines for connecting the gate electrodes to an external circuit and a plurality of connection terminals for connecting the gate electrodes to the external circuit" as recited in independent claims 1-6. Prior to this amendment, independent claims 1-6 recited "a plurality of lead lines and a plurality of connection terminals for connecting the gate electrodes to an external circuit". (Emphasis added) In the final Office Action, the Examiner asserted that Figure 7 of the present application shows "a plurality of lead lines [Fig.7, 4B] and a plurality of connection terminals [Fig.7,6] for connecting the gate electrodes to an external circuit." (Pages 2 and 3.)

During the telephone interview, the undersigned noted that the lead lines 4B connect non-gate electrodes (that is, the charge transfer electrodes of group "b" of the vertical transfer path 2), not gate electrodes (that is the electrodes of group "a" of the vertical transfer path 2). The Examiner indicated that he was interpreting the above-quoted recitation so that the "for connecting

the gate electrodes to an external circuit" phrase modifies the plurality of connection terminals, but not the plurality of lead lines.

Although the phrase in the previous version of claims 1-6 was intended to modify both the lead lines and the connection terminals, the applicants have amended claims 1-6 to recite this feature explicitly. Accordingly, claims 1-6 are not anticipated by the purportedly admitted prior art for at least this reason. Since claims 12 and 18 depend from claim 1, claims 13 and 19 depend from claim 2, claims 14 and 20 depend from claim 3, claims 7, 15 and 21 depend from claim 4, claims 8, 16 and 22 depend from claim 5 and claims 9, 17 and 23 depend from claim 6, these dependent claims are similarly allowable.

Second, the purportedly admitted prior art does not teach gate electrodes making up N of gate electrode groups in which the lines belonging to each coset of modulo N within successive pixel rows are connected to common lead lines, where the number N is the minimum number corresponding to the periodic unit about connections from said gate electrodes to said connection terminals within said successive pixel rows.

During the telephone interview, the undersigned noted that the independent claims recite that the number N is:

the minimum number corresponding to
the periodic unit about connections
from said gate electrodes to said
connection terminals within said
successive pixel rows

and argued that the Examiner's position that $N=18$ was not shown in Figure 7; rather $N=16$ is shown in Figure 7.

The Examiner responded that one could use any numbering convention, and essentially reiterated his position found on pages 5 and 6 of the final Office Action. The enclosed, marked-up copy of Figure 7 shows the Examiner's application of the claim language to Figure 7. However, if the Examiner is applying the claim language to the device of Figure 7 as described above, then Figure 7 does not show:

the gate electrodes making up N of
gate electrode groups in which the
lines belonging to each coset of
modulo N within successive pixel rows
are connected to common lead lines

as recited in the claims. Specifically, using the Examiner's application of the claim to Figure 7, if $N=18$, the fact that lines 1 and 17 are commonly connected to terminal 1 violates the recited relationship quoted above. That is, $1 \text{ MOD } 18 = 1$ and $17 \text{ MOD } 18 = 17$, so these lines would belong to different cosets. Note that if $N=18$, then the lines 1, 19, 37 ... would belong to coset 1, lines 2, 20, 38 ... would belong to coset 2, etc. None of these lines are commonly connected to a terminal.

During the telephone interview, the Examiner appreciated this argument, but said that he would need more time to consider whether the claim language actually requires this. The applicants respectfully request that the Examiner reconsider this issue.

In view of the foregoing, claims 1-6 are not anticipated by the purportedly admitted prior art for at least this additional reason. Since claims 12 and 18

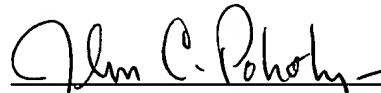
depend from claim 1, claims 13 and 19 depend from claim 2, claims 14 and 20 depend from claim 3, claims 7, 15 and 21 depend from claim 4, claims 8, 16 and 22 depend from claim 5 and claims 9, 17 and 23 depend from claim 6, these dependent claims are similarly allowable.

Conclusion

In view of the foregoing amendments and remarks, the applicants respectfully submit that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Respectfully submitted,

June 3, 2004


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